

Krosa Silt Loam 82-1D-0562 (82ID-009-7)

Classification: fine-loamy, mixed, frigid Ultic Haploxeralf.

General Site Characteristics

Location: Benewah County, Idaho; 1.5 miles S of Emerald Creek, Idaho; 740 feet
E & 1050 feet N of southwest corner of sec. 28, T. 43N., R. 1E.

Forest:

Area: Emerald Creek

Described By/Date: Soil Conservation Service personnel on March 16, 1982

Parent Rock/Material: schist with loess mantle

Habitat Type: grand fir/ninebark; grand fir, Douglass fir, western larch, snowberry,
ninebark, oceanspray, twinflower, Oregon grape, strawberry.

Topography: steep

Landform: mountain slope, convex

Weathering:

Formation Name:

Slope: 38 percent

Aspect: south

Elevation: 2880 feet

Soil Depth:

Eff. Rooting Depth:

Litter Type:

Surface Rock:

Climate: frigid

Precipitation:

Erosion: slight

Infiltration:

Permeability:

Storage:

Drainage: well drained

Air Temp:

Soil Temp at 20 inches:

Salt/Alkal:

Remarks: Moderate brush problem.

Pedon Description

01 5-4 cm. Needles, leaves, and twigs.

02 4-0 cm. Decomposed organic matter.

A1 0-5 cm. Grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2)
moist; moderate fine granular structure; slightly hard, friable, slightly sticky and slightly
plastic; strongly acid pH 5.4; many very fine and fine, common medium roots; many very
fine and fine tubular pores; clear wavy boundary.

A2 5-15 cm. Brown (10YR 5/3) silt loam, very dark grayish brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; moderately acid pH 5.7; many very fine and fine, common medium roots; many very fine, common fine tubular pores; gradual wavy boundary.

Bw 15-36 cm. Pale brown (10YR 6/3) silt loam, brown to dark brown (10YR 4/3) moist; moderate medium and coarse subangular blocky structure; moderately acid pH 5.9; common very fine and fine, few medium and coarse roots; many very fine, common fine tubular pores; gradual wavy boundary.

Bt1 36-56 cm. Pale brown (10YR 6/3) silt loam, brown to dark brown (10YR 4/3) moist; moderate medium and coarse subangular blocky structure; hard, firm, slightly sticky and slightly plastic; strongly acid pH 5.5; common very fine, few fine, medium and coarse roots; many very fine, common fine tubular pores; common thin clay films lining ped faces and pores; clear wavy boundary.

Bt2 56-81 cm. Pale brown (10YR 6/3) silt loam, brown to dark brown (10YR 4/3) moist; moderate medium and coarse angular blocky structure; hard, firm, slightly sticky and slightly plastic; strongly acid pH 5.1; few very fine, fine, and medium roots; many very fine and fine, few medium tubular pores; common moderately thick clay films lining ped faces and pores; two clay bands (2 cm thick) strong brown (7.5YR 4/6); clear wavy boundary.

Bt3 81-109 cm. Pale brown (10YR 6/3) silt loam, brown to dark brown (10YR 4/3) moist; weak medium and coarse angular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; strongly acid pH 5.1; few very fine roots; common very fine, few fine tubular pores; many thick clay films lining ped faces and pores; clay films are dark brown (7.5YR 3/4); clear wavy boundary.

Bt4 109-130 cm. Light yellowish brown (10YR 6/4) silt loam, dark yellowish brown (10YR 4/4) moist; weak medium and coarse angular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; strongly acid pH 5.1; few very fine roots; common very fine, few fine tubular pores; common thin clay films lining ped faces and pores; few fine iron stains; clear wavy boundary.

C 130-157 cm. Light yellowish brown (10YR 6/4) fine sandy loam, dark yellowish brown (10YR 4/4) moist; massive structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; common very fine, few fine tubular pores; few fine iron stains; abrupt irregular boundary.

Cr 157+ cm. Weathered schist.

Pedon: Kruse Silt Loam 82-1D-0562 (82ID-009-7)

Date: June 1984

Sample No.	Horizon	Depth	pH paste	EC ₁₀ ³	Z Water at Saturation	Available P	Sesquioxides				Spodic
							Di-Citrate Fe	Extract Al	Pyrophosphate Fe	Extract Al	
		cm		mhos/cm		ppm	Z				
	O1	5- 4	NS	NS	NS	NS					
	O2	4- 0	NS	NS	NS	NS					
1	A1	0- 5	5.4	1.60	72	6.6					
2	A2	5- 15	5.7	0.62	51	5.4					
3	Bw	15- 36	5.9	0.31	40	0.6					
4	Bt1	36- 56	5.5	0.20	38	1.3					
5	Bt2	56- 81	5.1	0.12	36	3.6					
6	Bt3	81-109	5.0	0.11	42	3.8					
7	Bt4	109-130	5.1	0.10	40	2.8					
8	C	130-157	5.4	0.15	32	3.4					
	CR	157+	NS	NS	NS	NS					

Sample No.	Exchangeable Ions				Ext. Acidity	CEC	Base	OM	UC	N	C:N	Soil	NaF pH
	Ca	Mg	Na	K	H	Saturation					Fraction		
	meq/100 gms					Z		Z		ratio			
	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1	13.4	2.3	0.1	0.5	14.6	25.4	53	12.43	7.23	0.231	31	1.00	8.3
2	9.2	1.0	0.1	0.4	9.3	14.3	54	3.05	1.77	0.096	18	1.00	8.7
3	7.3	0.8	0.1	0.4	5.5	10.6	61	1.22	0.71	0.052	14	1.00	8.6
4	5.8	1.0	0.1	0.3	5.5	8.8	57	0.54	0.31	0.033	9	1.00	8.6
5	4.1	0.3	0.1	0.3	4.7	10.1	50	0.42	0.24	0.028	9	1.00	7.9
6	6.7	2.4	0.2	0.2	8.3	13.7	53	0.39	0.23	0.025	9	1.00	8.2
7	7.6	3.5	0.1	0.2	9.1	13.5	59	0.37	0.21	0.024	9	1.00	8.0
8	10.8	5.3	0.2	0.2	8.1	9.6	67	0.26	0.15	0.022	7	1.00	7.9
	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Remarks: CEC's were leached with 10% acidified NaCl.
CEC's and nitrogens were run by steam distillation.
Extractable cations were run on the Jarrell Ash atomic absorption.
NS - no sample

Analysis by: Debbie Eisinger

Pedon: Kruse Silt Loam B2-ID-0562 (82ID-009-7)

Date: May 1984

Particle Size Distribution (mm)									Gravel & Stone		
Depth	VCS	CS	MS	FS	VFS	TS	TSi	TC	>2 mm	Textural	
	2-1.0	1-0.5	0.5-0.25	0.25-0.1	0.1-0.05	2-0.05	0.05-0.002	<0.002	wt.	vol.	Classes
cm	%								%		
5- 4	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS
4- 0	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS
0- 5	4.28	2.78	1.63	5.55	9.27	23.51	64.57	11.92	none		Silt loam
5- 15	1.93	1.69	1.06	4.77	11.00	20.45	66.52	13.03	none		Silt loam
15- 36	1.70	1.71	1.21	4.86	11.77	21.25	66.26	12.49	none		Silt loam
36- 56	1.12	1.49	0.95	5.02	13.18	21.76	66.03	12.21	none		Silt loam
56- 81	0.90	1.12	0.86	5.12	14.71	22.70	63.19	14.11	none		Silt loam
81-109	0.69	1.02	1.00	5.26	13.21	21.18	59.49	19.33	none		Silt loam
109-130	1.32	1.48	1.13	5.75	13.99	23.67	58.52	17.81	none		Silt loam
130-157	6.82	5.10	3.92	25.33	22.13	63.30	28.28	8.42	none		Fine sandy loam
157+	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS

Silt Size Distribution (mm)				Water Content		Liquid	Plastic	Plastic		
Depth	CoSi	Msi	Fsi	Bulk Density		1/3	15	Limit	Limit	Index
	0.05-0.02	0.02-0.005	0.005-0.002	Clod	Core	Bar	Bar			
cm	%			g/cc		%		%		
5- 4						NS	NS			
4- 0						NS	NS			
0- 5						50.2	29.8			
5- 15						36.7	19.5			
15- 36						30.7	16.7			
36- 56						28.2	14.4			
56- 81						28.1	15.3			
81-109						32.1	18.0			
109-130						31.1	16.8			
130-157						17.1	11.5			
157+						NS	NS			

Remarks: Samples were run by the centrifuge method, 5% sodium hexametaphosphate added, sonified, and carbonates were not removed.
NS - no sample

Analysis by: Anita L. Falen